

SEQUENCE LISTING

<110> Alnemri, Emad S.
Fernandez-Alnemri, Teresa

<120> CASPASE-14, AN APOTOTIC PROTEASE, NUCLEIC ACID ENCODING
AND METHODS OF USE

<130> 480140.434C1

<140> US 09/187,789

<141> 1998-11-06

<160> 78

<170> PatentIn Ver. 2.0

<210> 1

<211> 850

<212> DNA

<213> Mus musculus

<220>

<221> modified_base

<222> (537)

<223> Where n is Adenine, Cytosine, Guanine or Thymine

<400> 1

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atggagtcag agatgagtga tcctcagcca ttgcaggagg aaagatatga tatgtcaggt 120
gcccgcctgg ccctgacgct gtgtgtcacc aaagcccggg aggggtccga ggtagacatg 180
gaggccctgg aacgcatgtt ccgttacctg aaatttgaaa gcaccatgaa gagggatccc 240
accgcccagc aatttctgga agagtggat gaatttcagc agaccataga taattgggaa 300
gagcctgtca gctgtgcctt tgtgttactc atggcacatg gtgaggaagg cctcctcaag 360
ggagaagatg agaagatggt cagactagaa gacctttttg aagtcttgaa caacaagaac 420
tgcaaggccc tgagaggcaa gccaaagggtg tacatcatcc aggctttagt aggagagcac 480
agagaccccg gtgaggaaact acgtggaaat gaggaactag gtggagatga ggaactnggt 540
ggagatgagg ttgctgtgct caagaacaac ccccaaagta tcccaaccta tacggatacc 600
ctccacatct actccacggt agaggggtac ctctcctata gacatgacga gaaaggctct 660
ggcttcatcc agaccctgac ggatgtgttc attcataaaa aaggatccat cttagaactg 720
acagaagaga tcacccgact tatggcaaac acggagggtga tgcaggaagg aaaaccaagg 780
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<210> 2

<211> 260

<212> PRT

<213> Mus musculus

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15                      20                      25
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FOOZT" E0668660

<400> 3
Gln Ala Cys Arg Gly
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<220>
<221> CDS
<222> (49) ... (774)
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<400> 4																	57
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Met Ser Asn																	
1																	
ccg cgg tct ttg gaa gag gag aaa tat gat atg tca ggt gcc gcg ctg																	105
Pro Arg Ser Leu Glu Glu Glu Lys Tyr Asp Met Ser Gly Ala Ala Leu																	
5 10 15																	
gcc cta ata ctg tgt gtc acc aaa gcc cgg gaa ggt tcc gaa gaa gac																	153
Ala Leu Ile Leu Cys Val Thr Lys Ala Arg Glu Gly Ser Glu Glu Asp																	
20 25 30 35																	
ctg gat gct ctg gaa cac atg ttt cgg cag ctg aga ttc gaa agc acc																	201
Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe Glu Ser Thr																	
40 45 50																	
atg aaa aga gac ccc act gcc gag caa ttc cag gaa gag ctg gaa aaa																	249
Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu Leu Glu Lys																	
55 60 65																	
ttc cag cag gcc atc gat tcc cgg gaa gat ccc gtc agt tgt gcc ttc																	297
Phe Gln Gln Ala Ile Asp Ser Arg Glu Asp Pro Val Ser Cys Ala Phe																	
70 75 80																	
gtg gta ctc atg gct cac ggg agg gaa ggc ttc ctc aag gga gaa gat																	345
Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys Gly Glu Asp																	
85 90 95																	
ggg gag atg gtc aag ctg gag aat ctc ttc gag gcc ctg aac aac aag																	393
Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu Asn Asn Lys																	
100 105 110 115																	
aac tgc cag gcc ctg cga gct aag ccc aag gtg tac atc ata cag gcc																	441
Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile Ile Gln Ala																	
120 125 130																	
tgt cga gga gaa caa agg gac ccc ggt gaa aca gta ggt gga gat gag																	489
Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly Gly Asp Glu																	
135 140 145																	
att gtg atg gtc atc aaa gac agc cca caa acc atc cca aca tac aca																	537
Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro Thr Tyr Thr																	
150 155 160																	

gat gcc ttg cac gtt tat tcc acg gta gag gga tac atc gcc tac cga 585
 Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Tyr Ile Ala Tyr Arg
 165 170 175

cat gat cag aaa ggc tca tgc ttt atc cag acc ctg gtg gat gtg ttc 633
 His Asp Gln Lys Gly Ser Cys Phe Ile Gln Thr Leu Val Asp Val Phe
 180 185 190 195

acg aag agg aaa gga cat atc ttg gaa ctt ctg aca gag gtg acc cgg 681
 Thr Lys Arg Lys Gly His Ile Leu Glu Leu Leu Thr Glu Val Thr Arg
 200 205 210

cgg atg gca gaa gca gag ctg gtt caa gaa gga aaa gca agg aaa acg 729
 Arg Met Ala Glu Ala Glu Leu Val Gln Glu Gly Lys Ala Arg Lys Thr
 215 220 225

aac cct gaa atc caa agc acc ctc cgg aaa cgg ctg tat ctg cag 774
 Asn Pro Glu Ile Gln Ser Thr Leu Arg Lys Arg Leu Tyr Leu Gln
 230 235 240

tag 777

<210> 5
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 <212> PRT
 <213> Homo sapien

<400> 5

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 Ala Ala Leu Ala Leu Ile Leu Cys Val Thr Lys Ala Arg Glu Gly Ser
 20 25 30
 Glu Glu Asp Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe
 35 40 45
 Glu Ser Thr Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu
 50 55 60
 Leu Glu Lys Phe Gln Gln Ala Ile Asp Ser Arg Glu Asp Pro Val Ser
 65 70 75 80
 Cys Ala Phe Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys
 85 90 95
 Gly Glu Asp Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu
 100 105 110
 Asn Asn Lys Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile
 115 120 125
 Ile Gln Ala Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly
 130 135 140
 Gly Asp Glu Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro
 145 150 155 160
 Thr Tyr Thr Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Tyr Ile
 165 170 175
 Ala Tyr Arg His Asp Gln Lys Gly Ser Cys Phe Ile Gln Thr Leu Val
 180 185 190
 Asp Val Phe Thr Lys Arg Lys Gly His Ile Leu Glu Leu Thr Glu
 195 200 205
 Val Thr Arg Arg Met Ala Glu Ala Glu Leu Val Gln Glu Gly Lys Ala

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<212> DNA
<213> Homo sapien
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<220>  
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<222> (48) ... (737)
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150 155 160	
gat gcc ttg cac gtt tat tcc acg gta gag gga ccc acg ccc ttc cag	584
Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Pro Thr Pro Phe Gln	
165 170 175	
gat ccc ctc tac cta ccc tct gaa gct ccc ccg aac cca cct ctc tgg	632
Asp Pro Leu Tyr Leu Pro Ser Glu Ala Pro Pro Asn Pro Pro Leu Trp	
180 185 190 195	
aat tcc cag gat aca tcg cct acc gac atg atc aga aag gct cat gct	680
Asn Ser Gln Asp Thr Ser Pro Thr Asp Met Ile Arg Lys Ala His Ala	
200 205 210	
tta tcc aga ccc tgg tgg atg tgt tca cga aga gga aag gac ata tct	728
Leu Ser Arg Pro Trp Trp Met Cys Ser Arg Arg Gly Lys Asp Ile Ser	
215 220 225	
tgg aac ttc tgacagaggt gacccggcgg atggcagaag cagagctgggt	777
Trp Asn Phe	
230	
tcaagaagga aaagcaagga aaacgaaccc tgaaatccaa agcaccctcc ggaaacggct	837
gtatctgcag tag	850
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20 25 30	
Glu Glu Asp Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe	
35 40 45	
Glu Ser Thr Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu	
50 55 60	
Leu Glu Lys Phe Gln Gln Ala Ile Asp Ser Arg Glu Asp Pro Val Ser	
65 70 75 80	
Cys Ala Phe Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys	
85 90 95	
Gly Glu Asp Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu	
100 105 110	
Asn Asn Lys Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile	
115 120 125	
Ile Gln Ala Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly	
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Gly Asp Glu Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro	
145 150 155 160	
Thr Tyr Thr Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Pro Thr	

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<211> 693
<212> DNA
<213> Homo sapien

<220>
<221> CDS
<222> (49) ... (690)
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Pro	Thr	Tyr	Thr	Asp	Ala	Leu	His	Val	Tyr	Ser	Thr	Val	Glu	Gly	Tyr	
			135					140					145			
atc	gcc	tac	cga	cat	gat	cag	aaa	ggc	tca	tgc	ttt	atc	cag	acc	ctg	537
Ile	Ala	Tyr	Arg	His	Asp	Gln	Lys	Gly	Ser	Cys	Phe	Ile	Gln	Thr	Leu	
			150				155					160				
gtg	gat	gtg	ttc	acg	aag	agg	aaa	gga	cat	atc	ttg	gaa	ctt	ctg	aca	585
Val	Asp	Val	Phe	Thr	Lys	Arg	Lys	Gly	His	Ile	Leu	Glu	Leu	Leu	Thr	
			165			170					175					
gag	gtg	acc	cgg	cgg	atg	gca	gaa	gca	gag	ctg	gtt	caa	gaa	gga	aaa	633
Glu	Val	Thr	Arg	Arg	Met	Ala	Glu	Ala	Glu	Leu	Val	Gln	Glu	Gly	Lys	
180					185					190					195	
gca	agg	aaa	acg	aac	cct	gaa	atc	caa	agc	acc	ctc	cgg	aaa	cgg	ctg	681
Ala	Arg	Lys	Thr	Asn	Pro	Glu	Ile	Gln	Ser	Thr	Leu	Arg	Lys	Arg	Leu	
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tat	ctg	cag	tag													693
Tyr	Leu	Gln														
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<213>	Homo sapien															
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Ala	Arg	Leu	Ala	Leu	Ile	Leu	Cys	Val	Thr	Lys	Ala	Arg	Glu	Gly	Ser	
			20					25					30			
Glu	Glu	Glu	Glu	Leu	Glu	Lys	Phe	Gln	Gln	Ala	Ile	Asp	Ser	Arg	Glu	
		35					40					45				
Asp	Pro	Val	Ser	Cys	Ala	Phe	Val	Val	Leu	Met	Ala	His	Gly	Arg	Glu	
		50				55					60					
Gly	Phe	Leu	Lys	Gly	Glu	Asp	Gly	Glu	Met	Val	Lys	Leu	Glu	Asn	Leu	
65					70					75					80	
Phe	Glu	Ala	Leu	Asn	Asn	Lys	Asn	Cys	Gln	Ala	Leu	Arg	Ala	Lys	Pro	
				85					90					95		
Lys	Val	Tyr	Ile	Ile	Gln	Ala	Cys	Arg	Gly	Glu	Gln	Arg	Asp	Pro	Gly	
			100					105					110			
Glu	Thr	Val	Gly	Gly	Asp	Glu	Ile	Val	Met	Val	Ile	Lys	Asp	Ser	Pro	
			115				120					125				
Gln	Thr	Ile	Pro	Thr	Tyr	Thr	Asp	Ala	Leu	His	Val	Tyr	Ser	Thr	Val	
						135					140					
Glu	Gly	Tyr	Ile	Ala	Tyr	Arg	His	Asp	Gln	Lys	Gly	Ser	Cys	Phe	Ile	
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Gln	Thr	Leu	Val	Asp</												

195
Lys Arg Leu Tyr Leu Gln
210

200

205

<210> 10
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<213> Mus musculus

<400> 10
Met Ala Glu Asn Lys His Pro Asp Lys Pro Leu Lys Val Leu Glu Gln
1 5 10 15

Leu Gly Lys Glu Val Leu
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<210> 11
<211> 36
<212> PRT
<213> Mus musculus

<400> 11
Thr Glu Tyr Leu Glu Lys Leu Val Gln Ser Asn Val Leu Lys Leu Lys
1 5 10 15

Glu Glu Asp Lys Gln Lys Phe Asn Asn Ala Glu Arg Ser Asp Lys Arg
20 25 30

Trp Val Phe Val
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<210> 12
<211> 70
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<213> Mus musculus

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Thr Phe Phe Ser Val Asp Pro Gly Ser His His Gly Glu Ala Asn Leu
20 25 30

Glu Met Glu Glu Pro Glu Glu Ser Leu Asn Thr Leu Lys Leu Cys Ser
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Pro Glu Glu Phe Thr Arg Leu Cys Arg Glu Lys Thr Gln Glu Ile Tyr
50 55 60

Pro Ile Lys Glu Ala Asn
65 70

FOOT "E0668650

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<400> 13
Gly Arg Thr Arg Lys Ala Leu Ile Ile Cys Asn Thr Glu Phe Lys His
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Leu Ser Leu Arg Tyr Gly Ala Asn Phe Asp Ile Ile Gly Met Lys Gly
      20             25             30

Leu Leu Glu Asp Leu Gly Tyr Asp Val Val Val Lys Glu Glu Leu Thr
      35             40             45

Ala Glu Gly Met Glu Ser Glu Met Asp Lys Phe Ala Ala Leu
      50             55             60

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<210> 14
<211> 94
<212> PRT
<213> Mus musculus

<400> 14
Ser Glu His Gln Thr Ser Asp Ser Thr Phe Leu Val Leu Met Ser His
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Gly Thr Leu His Gly Ile Cys Gly Thr Met His Ser Glu Lys Thr Pro
      20             25             30
Asp Val Leu Gln Tyr Asp Thr Ile Tyr Gln Ile Phe Asn Asn Cys His
      35             40             45
Cys Pro Gly Leu Arg Asp Lys Pro Lys Val Ile Ile Val Gln Ala Cys
      50             55             60
Arg Gly Gly Asn Ser Gly Glu Met Trp Ile Arg Glu Ser Ser Lys Pro
      65             70             75             80
Gln Leu Cys Arg Gly Val Asp Leu Pro Arg Asn Met Glu Ala
      85             90

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<210> 15
<211> 89
<212> PRT
<213> Mus musculus

<400> 15
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  1             5             10             15
Ser Thr Thr Pro His His Leu Ser Tyr Arg Asp Lys Thr Gly Gly Ser
      20             25             30

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<211> 172
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<213> Mus musculus
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<210> 17

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<211> 62
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 <213> Mus musculus

<400> 17
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 Leu Phe Asp Arg Asp Asn Ala Asp Thr Asp Ile Leu Asn Met Gln Glu
 20 25 30
 Leu Leu Glu Asn Leu Gly Tyr Ser Val Val Leu Lys Glu Asn Leu Thr
 35 40 45
 Ala Gln Glu Met Glu Thr Glu Leu Met Gln Phe Ala Gly Arg
 50 55 60

<210> 18
 <211> 74
 <212> PRT
 <213> Mus musculus

<400> 18
 Pro Glu His Gln Ser Ser Asp Ser Thr Phe Leu Val Phe Met Ser His
 1 5 10 15
 Gly Ile Leu Glu Gly Ile Cys Gly Val Lys His Arg Asn Lys Lys Pro
 20 25 30
 Asp Val Leu His Asp Asp Thr Ile Phe Lys Ile Phe Asn Asn Ser Asn
 35 40 45
 Cys Arg Ser Leu Arg Asn Lys Pro Lys Ile Leu Ile Met Gln Ala Cys
 50 55 60
 Arg Gly Arg Tyr Asn Gly Thr Ile Trp Val
 65 70

<210> 19
 <211> 21
 <212> PRT
 <213> Mus musculus

<400> 19
 Ser Thr Asn Lys Gly Ile Ala Thr Ala Asp Thr Asp Glu Glu Arg Val
 1 5 10 15
 Leu Ser Cys Lys Trp
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<210> 20
 <211> 90

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<213> Mus musculus

Asn Asn Ser Ile Thr Lys Ala His Val Glu Thr Asp Phe Ile Ala Phe
1 5 10 15

Lys Ser Ser Thr Pro His Asn Ile Ser Trp Arg Val Gly Lys Thr Gly
20 25 30

Ser Leu Phe Ile Ser Lys Leu Ile Asp Cys Phe Lys Lys Tyr Cys Trp
35 40 45

Cys Tyr His Leu Glu Glu Ile Phe Arg Lys Val Gln His Ser Phe Glu
50 55 60

Val	Pro	Gly	Glu	Leu	Thr	Gln	Met	Pro	Thr	Ile	Glu	Arg	Val	Ser	Met
65					70					75					80

Thr Arg Tyr Phe Tyr Leu Phe Pro Gly Asn
85 90

<211> 119

<213> Mus musculus

Met Ala Asp Lys Ile Leu Arg Ala Lys Arg Lys Gln Phe Ile Asn Ser
1 5 10 15

Val Ser Ile Gly Thr Ile Asn Gly Leu Leu Asp Glu Leu Leu Glu Lys
20 25 30

Arg Val Leu Asn Gln Glu Glu Met Asp Lys Ile Lys Leu Ala Asn Ile
35 40 45

Thr Ala Met Asp Lys Ala Arg Asp Leu Cys Asp His Val Ser Lys Lys
50 55 60

Gly Pro Gln Ala Ser Gln Ile Phe Ile Thr Tyr Ile Cys Asn Glu Asp
65 70 75 80

Cys Tyr Leu Ala Gly Ile Leu Glu Leu Gln Ser Ala Pro Ser Ala Glu
85 90 95

Thr Phe Val Ala Thr Glu Asp Ser Lys Gly Gly His Pro Ser Ser Ser
100 105 110

Glu Thr Lys Glu Glu Gln Asn
115

<210> 22

D E B I T O R S

<211> 11
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<400> 22
 Lys Glu Asp Gly Thr Phe Pro Gly Leu Thr Gly
 1 5 10

<210> 23
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 <212> PRT
 <213> Mus musculus

<400> 23
 Thr Leu Lys Phe Cys Pro Leu Glu Lys Ala Gln Lys Leu Trp Lys Glu
 1 5 10 15

Asn Pro Ser Glu Ile Tyr Pro Ile Met Asn Thr Thr
 20 25

<210> 24
 <211> 62
 <212> PRT
 <213> Mus musculus

<400> 24
 Thr Arg Thr Arg Leu Ala Leu Ile Ile Cys Asn Thr Glu Phe Gln His
 1 5 10 15

Leu Ser Pro Arg Val Gly Ala Gln Val Asp Leu Arg Glu Met Lys Leu
 20 25 30

Leu Leu Glu Asp Leu Gly Tyr Thr Val Lys Val Lys Glu Asn Leu Thr
 35 40 45

Ala Leu Glu Met Val Lys Glu Val Lys Glu Phe Ala Ala Cys
 50 55 60

<210> 25
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 <212> PRT
 <213> Mus musculus

<400> 25
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Gly Ile Gln Glu Gly Ile Cys Gly Thr Thr Tyr Ser Asn Glu Val Ser
 20 25 30

Asp Ile Leu Lys Val Asp Thr Ile Phe Gln Met Met Asn Thr Leu Lys
 35 40 45

FOOT" E066350

Cys Pro Ser Leu Lys Asp Lys Pro Lys Val Ile Ile Ile Gln Ala Cys
 50 55 60

Arg Gly Glu Lys Gln Gly Val Val Leu Leu Lys Asp Ser
 65 70 75

<210> 26
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 <212> PRT
 <213> Mus musculus

<400> 26
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 1 5 10 15

Asp Gly Ile Lys Lys Ala His Ile Glu Lys Asp Phe Ile Ala Phe Cys
 20 25 30

Ser Ser Thr Pro Asp Asn Val Ser Trp Arg His Pro Val Arg Gly Ser
 35 40 45

Leu Phe Ile Glu Ser Leu Ile Lys His Met Lys Glu Tyr Ala Trp Ser
 50 55 60

Cys Asp Leu Glu Asp Ile Phe Arg Lys Val Arg Phe Ser Phe Glu Gln
 65 70 75 80

Pro Glu Phe Arg Leu Gln Met Pro Thr Ala Asp Arg Val Thr Leu Thr
 85 90 95

Lys Arg Phe Tyr Leu Phe Pro Gly His
 100 105

<210> 27
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 <213> Mus musculus

<400> 27
 Met Glu Asn Asn Lys Thr Ser Val Asp Ser Lys Ser Ile Asn Asn Phe
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Glu Val Lys Thr Ile His Gly Ser Lys Ser Val Asp Ser Gly Ile Tyr
 20 25 30

Leu Asp Ser Ser Tyr Lys Met Asp Tyr Pro Glu Met Gly Ile Cys Ile
 35 40 45

Ile Ile Asn Asn Lys Asn Phe His Lys Ser
 50 55

FOOZT "E0668650

<210> 28
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 Arg Glu Thr Phe Met Gly Leu Lys Tyr Cys Val Arg Asn Lys Asn Asp
 20 25 30
 Leu Thr Arg Glu Asp Ile Leu Glu Leu Met Asp Ser Val Ser Lys
 35 40 45

<210> 29
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 <213> Mus musculus

<400> 29
 Glu Asp His Ser Lys Arg Ser Ser Phe Val Cys Val Ile Leu Ser His
 1 5 10 15
 Gly Asp Glu Gly Val Ile Tyr Gly Thr Asn Gly Pro
 20 25

<210> 30
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 <213> Mus musculus

<400> 30
 Val Glu Leu Lys Lys Leu Thr Ser Phe Phe Arg Gly Asp Tyr Cys Arg
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 Ser Leu Thr Gly Lys Pro Lys Leu Phe Ile Ile Gln Ala Cys Arg Gly
 20 25 30
 Thr Glu Leu Asp Cys Gly Ile
 35

<210> 31
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 <212> PRT
 <213> Mus musculus

<400> 31
 Glu Thr Asp Ser
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<210> 32
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 <213> Mus musculus

<400> 32
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<210> 33
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 <212> PRT
 <213> Mus musculus

<400> 33
 Gln Lys Ile Pro Val Glu Ala Asp Phe Leu Tyr Ala Tyr Ser Thr Ala
 1 5 10 15

Pro Gly Tyr Tyr Ser Trp Arg Asn Ser Lys Asp Gly Ser Trp Phe Ile
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Gln Ser Leu Cys Ser Met Leu Lys Leu Tyr
 35 40

<210> 34
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 <212> PRT
 <213> Mus musculus

<400> 34
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 1 5 10 15

Val Ala Thr Glu Phe Glu Ser Phe Ser Leu Asp Ser Thr Phe His Ala
 20 25 30

Lys Lys Gln Ile Pro Cys Ile Val Ser Met Leu Thr Lys Glu Leu Tyr
 35 40 45

Phe Tyr His
 50

<210> 35
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 <213> Mus musculus

<400> 35
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 1 5 10 15

Ser Ser Glu Asp Gly Val Asp Ala Lys Pro Asp Arg Ser Ser Ile Ile

FOO2T" E0668660

20

25

30

Ser Ser Ile Leu Leu Lys Lys Lys Arg Asn Ala Ser Ala Gly Pro Val
 35 40 45

Arg Thr Gly Arg Asp Arg Val Pro Thr Tyr Leu Tyr Arg Met Asp Phe
 50 55 60

Gln Lys Met Gly Lys Cys Ile Ile Ile Asn Asn Lys Asn Phe Asp Lys
 65 70 75 80

Ala

<210> 36

<211> 47

<212> PRT

<213> Mus musculus

<400> 36

Thr Gly Met Asp Val Arg Asn Gly Thr Asp Lys Asp Ala Gly Ala Leu
 1 5 10 15

Phe Lys Cys Phe Gln Asn Leu Gly Phe Glu Val Thr Val His Asn Asp
 20 25 30

Cys Ser Cys Ala Lys Met Gln Asp Leu Leu Arg Lys Ala Ser Glu
 35 40 45

<210> 37

<211> 28

<212> PRT

<213> Mus musculus

<400> 37

Glu Asp His Ser Asn Ser Ala Cys Phe Ala Cys Val Leu Leu Ser His
 1 5 10 15

Gly Glu Glu Asp Leu Ile Tyr Gly Lys Asp Gly Val
 20 25

<210> 38

<211> 39

<212> PRT

<213> Mus musculus

<400> 38

Thr Pro Ile Lys Asp Leu Thr Ala His Phe Arg Gly Asp Arg Cys Lys
 1 5 10 15

Thr Leu Leu Glu Lys Pro Lys Leu Phe Phe Ile Gln Ala Cys Arg Gly
 20 25 30

FOOT" E0668650

Thr Glu Leu Asp Asp Gly Ile
35

<210> 39
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<212> PRT
<213> Mus musculus

<400> 39
Gln Ala Asp Ser
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<210> 40
<211> 52
<212> PRT
<213> Mus musculus

<400> 40
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Ala Asp Phe Leu Phe Ala Tyr Ser Thr Val Pro Gly Tyr Tyr Ser Trp
20 25 30

Arg Asn Pro Gly Lys Gly Ser Trp Phe Val Gln Ala Leu Cys Ser Ile
35 40 45

Leu Asn Glu His
50

<210> 41
<211> 51
<212> PRT
<213> Mus musculus

<400> 41
Gly Lys Asp Leu Glu Ile Met Gln Ile Leu Thr Arg Val Asn Asp Arg
1 5 10 15

Val Ala Arg His Phe Glu Ser Gln Ser Asp Asp Pro Arg Phe Asn Glu
20 25 30

Lys Lys Gln Ile Pro Cys Met Val Ser Met Leu Thr Lys Glu Leu Tyr
35 40 45

Phe Ser Arg
50

<210> 42
<211> 41

0989903-12004

<212> PRT

<213> Mus musculus

<400> 42

Met Thr Glu Thr Asp Gly Phe Tyr Lys Ser Arg Glu Val Phe Asp Pro
 1 5 10 15

Ala Glu Gln Tyr Lys Met Asp His Lys Arg Arg Gly Val Ala Leu Ile
 20 25 30

Phe Asn His Glu Arg Phe Phe Trp His
 35 40

<210> 43

<211> 47

<212> PRT

<213> Mus musculus

<400> 43

Leu Thr Leu Pro Glu Arg Arg Gly Thr Asn Ala Asp Arg Asp Asn Leu
 1 5 10 15

Thr Arg Arg Phe Ser Asp Leu Gly Phe Glu Val Lys Cys Phe Asn Asp
 20 25 30

Leu Arg Ala Glu Glu Leu Leu Leu Lys Ile His Glu Val Ser Thr
 35 40 45

<210> 44

<211> 28

<212> PRT

<213> Mus musculus

<400> 44

Ser Ser His Ile Asp Ala Asp Cys Phe Ile Cys Val Phe Leu Ser His
 1 5 10 15

Gly Glu Gly Asn His Val Tyr Ala Tyr Asp Ala Lys
 20 25

<210> 45

<211> 51

<212> PRT

<213> Mus musculus

<400> 45

Ile Glu Ile Gln Thr Leu Thr Gly Leu Phe Lys Gly Asp Lys Cys Gln
 1 5 10 15

Ser Leu Val Gly Lys Pro Lys Ile Phe Ile Ile Gln Ala Cys Arg Gly
 20 25 30

FOOET" E0668660

Ser Gln His Asp Val Pro Val Val Pro Leu Asp Met Val Asp His Gln
 35 40 45

Thr Asp Lys
 50

<210> 46
 <211> 52
 <212> PRT
 <213> Mus musculus

<400> 46
 Asn Val Thr Gln Val Asp Ala Ala Ser Val Tyr Thr Leu Pro Ala Gly
 1 5 10 15

Ala Asp Phe Leu Met Cys Tyr Ser Val Ala Glu Gly Tyr Tyr Ser His
 20 25 30

Arg Glu Thr Val Asn Gly Ser Trp Tyr Ile Gln Asp Leu Cys Glu Met
 35 40 45

Leu Ala Arg Tyr
 50

<210> 47
 <211> 55
 <212> PRT
 <213> Mus musculus

<400> 47
 Gly Ser Ser Leu Glu Phe Thr Glu Leu Leu Thr Leu Val Asn Arg Lys
 1 5 10 15

Val Ser Gln Arg Arg Val Asp Phe Cys Lys Asp Pro Asp Ala Ile Gly
 20 25 30

Lys Lys Gln Val Pro Cys Phe Ala Ser Met Leu Thr Lys Lys Leu His
 35 40 45

Phe Cys Pro Lys Pro Ser Lys
 50 55

<210> 48
 <211> 250
 <212> PRT
 <213> Mus musculus

<400> 48
 Met Asp Phe Gln Ser Cys Leu Asp Ala Ile Ala Glu Glu Leu Gly Ser
 1 5 10 15

Glu Asp Leu Ala Ala Leu Lys Phe Leu Cys Leu Asp Tyr Ile Pro His

FOOTER: E0663660

30

Asp Cys Asp Lys Glu Ala Leu Ser Lys Thr Phe Lys Glu Leu His Phe

049903 = 1101

20

25

30

Glu Ile Val Ser Tyr Asp Asp Cys Thr Ala Asn Glu Ile His Glu Ile
 35 40 45

Leu Glu Gly Tyr Gln Ser
 50

<210> 50

<211> 28

<212> PRT

<213> Mus musculus

<400> 50

Ala Asp His Lys Asn Lys Asp Cys Phe Ile Cys Cys Ile Leu Ser His
 1 5 10 15

Gly Asp Lys Gly Val Val Tyr Gly Thr Asp Gly Lys
 20 25

<210> 51

<211> 52

<212> PRT

<213> Mus musculus

<400> 51

Glu Ala Ser Ile Tyr Asp Leu Thr Ser Tyr Phe Thr Gly Ser Lys Cys
 1 5 10 15

Pro Ser Leu Ser Gly Lys Pro Lys Ile Phe Phe Ile Gln Ala Cys Arg
 20 25 30

Gly Ser Asn Phe Gln Lys Gly Val Pro Asp Glu Ala Gly Phe Glu Gln
 35 40 45

Gln Asn His Thr
 50

<210> 52

<211> 47

<212> PRT

<213> Mus musculus

<400> 52

Ser Ser His Lys Asn Tyr Ile Pro Asp Glu Ala Asp Phe Leu Leu Gly
 1 5 10 15

Met Ala Thr Val Leu Met Cys Val Ser Tyr Arg Asp Pro Val Asn Gly
 20 25 30

Thr Trp Tyr Ile Gln Ser Leu Cys Gln Ser Leu Arg Glu Arg Cys
 35 40 45

09989903 "E0658660

<210> 53
 <211> 19
 <212> PRT
 <213> Mus musculus

<400> 53
 Pro Gln Gly Asp Asp Ile Leu Ser Ile Leu Thr Gly Val Asn Tyr Asp
 1 5 10 15
 Val Ser Asn

<210> 54
 <211> 22
 <212> PRT
 <213> Mus musculus

<400> 54
 Lys Asp Asp Arg Arg Asn Lys Gly Lys Gln Met Pro Gln Pro Thr Phe
 1 5 10 15
 Thr Leu Arg Lys Lys Leu
 20

<210> 55
 <211> 260
 <212> PRT
 <213> Mus musculus

<400> 55
 Met Ala Ala Pro Ser Gly Arg Ser Gln Ser Ser Leu His Arg Lys Gly
 1 5 10 15
 Leu Met Ala Ala Asp Arg Arg Ser Arg Ile Leu Ala Val Cys Gly Met
 20 25 30
 His Pro Asp His Gln Glu Thr Leu Lys Lys Asn Arg Val Val Leu Ala
 35 40 45
 Lys Gln Leu Leu Leu Ser Glu Leu Leu Glu His Leu Leu Glu Lys Asp
 50 55 60
 Ile Ile Thr Leu Glu Met Arg Glu Leu Ile Gln Ala Lys Gly Gly Ser
 65 70 75 80
 Phe Ser Gln Asn Val Glu Leu Leu Asn Leu Leu Pro Lys Arg Gly Pro
 85 90 95
 Gln Ala Phe Asp Ala Phe Cys Glu Ala Leu Arg Glu Thr Arg Gln Gly
 100 105 110

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 FOOTNOTES

His Leu Glu Asp Leu Leu Leu Thr Thr Leu Ser Asp Ile Gln His Val
 115 120 125

Leu Pro Pro Leu Ser Cys Asp Tyr Asp Thr Ser Leu Pro Phe Ser Val
 130 135 140

Cys Glu Ser Cys Pro Pro His Lys Gln Leu Arg Leu Ser Thr Asp Ala
 145 150 155 160

Thr Glu His Ser Leu Asp Asn Gly Asp Gly Pro Pro Cys Leu Leu Val
 165 170 175

Lys Pro Cys Thr Pro Glu Phe Tyr Gln Ala His Tyr Gln Leu Ala Tyr
 180 185 190

Arg Leu Gln Ser Gln Pro Arg Gly Leu Ala Leu Val Leu Ser Asn Val
 195 200 205

His Phe Thr Gly Glu Lys Asp Leu Glu Phe Arg Ser Gly Gly Asp Val
 210 215 220

Asp His Thr Thr Leu Val Thr Leu Phe Lys Leu Leu Gly Tyr Asn Val
 225 230 235 240

His Val Leu His Asp Gln Thr Ala Gln Glu Met Gln Glu Lys Leu Gln
 245 250 255

Asn Phe Ala Gln
 260

<210> 56
 <211> 11
 <212> PRT
 <213> Mus musculus

<400> 56
 Leu Pro Ala His Arg Val Thr Asp Ser Val Cys
 1 5 10

<210> 57
 <211> 18
 <212> PRT
 <213> Mus musculus

<400> 57
 Val Ala Leu Leu Ser His Gly Val Glu Gly Gly Ile Tyr Gly Val Asp
 1 5 10 15

Gly Lys

<210> 58

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<211> 56
 <212> PRT
 <213> Mus musculus

<400> 58
 Leu Leu Gln Leu Gln Glu Val Phe Arg Leu Phe Asp Asn Ala Asn Cys
 1 5 10 15
 Pro Ser Leu Gln Asn Lys Pro Lys Met Phe Phe Ile Gln Ala Cys Arg
 20 25 30
 Gly Asp Glu Thr Asp Arg Gly Val Asp Gln Gln Asp Gly Lys Asn His
 35 40 45
 Thr Gln Ser Pro Gly Cys Glu Glu
 50 55

<210> 59
 <211> 53
 <212> PRT
 <213> Mus musculus

<400> 59
 Ser Asp Ala Gly Lys Glu Glu Leu Met Lys Met Arg Leu Pro Thr Arg
 1 5 10 15
 Ser Asp Met Ile Cys Gly Tyr Ala Cys Leu Lys Gly Asn Ala Ala Met
 20 25 30
 Arg Asn Thr Lys Arg Gly Ser Trp Tyr Ile Glu Ala Leu Thr Gln Val
 35 40 45
 Phe Ser Glu Arg Ala
 50

<210> 60
 <211> 18
 <212> PRT
 <213> Mus musculus

<400> 60
 Asp Met His Val Ala Asp Met Leu Val Lys Val Asn Ala Leu Ile Lys
 1 5 10 15
 Glu Arg

<210> 61
 <211> 35
 <212> PRT
 <213> Mus musculus

FOOT "E068650

<400> 61

Glu Gly Tyr Ala Pro Gly Thr Glu Phe His Arg Cys Lys Glu Met Ser
 1 5 10 15

Glu Tyr Cys Ser Thr Leu Cys Gln Gln Leu Tyr Leu Phe Pro Gly Tyr
 20 25 30

Pro Pro Thr
 35

<210> 62

<211> 31

<212> PRT

<213> Mus musculus

<400> 62

Met Glu Ser Glu Met Ser Asp Pro Gln Pro Leu Gln Glu Glu Arg Tyr
 1 5 10 15

Asp Met Ser Gly Ala Arg Leu Ala Leu Thr Leu Cys Val Thr Lys
 20 25 30

<210> 63

<211> 74

<212> PRT

<213> Mus musculus

<400> 63

Ala Arg Glu Gly Ser Glu Val Asp Met Glu Ala Leu Glu Arg Met Phe
 1 5 10 15

Arg Tyr Leu Lys Phe Glu Ser Thr Met Lys Arg Asp Pro Thr Ala Gln
 20 25 30

Gln Phe Leu Glu Glu Leu Asp Glu Phe Gln Gln Thr Ile Asp Asn Trp
 35 40 45

Glu Glu Pro Val Ser Cys Ala Phe Val Val Leu Met Ala His Gly Glu
 50 55 60

Glu Gly Leu Leu Lys Gly Glu Asp Glu Lys
 65 70

<210> 64

<211> 56

<212> PRT

<213> Mus musculus

<400> 64

Met Val Arg Leu Glu Asp Leu Phe Glu Val Leu Asn Asn Lys Asn Cys
 1 5 10 15

FOREF" E0558660

Lys Ala Leu Arg Gly Lys Pro Lys Val Tyr Ile Ile Gln Ala Cys Arg
 20 25 30

Gly Glu His Arg Asp Pro Gly Glu Glu Leu Arg Gly Asn Glu Glu Leu
 35 40 45

Gly Gly Asp Glu Glu Leu Gly Gly
 50 55

<210> 65

<211> 53

<212> PRT

<213> Mus musculus

<400> 65

Asp Glu Val Ala Val Leu Lys Asn Asn Pro Gln Ser Ile Pro Thr Tyr
 1 5 10 15

Thr Asp Thr Leu His Ile Tyr Ser Thr Val Glu Gly Tyr Leu Ser Tyr
 20 25 30

Arg His Asp Glu Lys Gly Ser Gly Phe Ile Gln Thr Leu Thr Asp Val
 35 40 45

Phe Ile His Lys Lys
 50

<210> 66

<211> 15

<212> PRT

<213> Mus musculus

<400> 66

Ile Leu Glu Leu Thr Glu Glu Ile Thr Arg Leu Met Ala Asn Thr
 1 5 10 15

<210> 67

<211> 8

<212> PRT

<213> Mus musculus

<400> 67

Glu Val Met Gln Glu Gly Lys Pro
 1 5

<210> 68

<211> 17

<212> PRT

<213> Mus musculus

<400> 68

FOOZT " E066650

Arg Lys Val Asn Pro Glu Val Gln Ser Thr Leu Arg Lys Lys Leu Tyr
1 5 10 15

Gln

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<210> 69
<211> 21
<212> DNA
<213> Artificial Sequence
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<220>
<223> Primer derived from mouse caspase-14 cDNA

<400> 69
atatgatatg tcaggtgccc g 21

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<210> 70
<211> 19
<212> DNA
<213> Artificial Sequence
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<220>
<223> Primer derived from mouse caspase-14 cDNA

<400> 70
ttccggaggg tgctttgga 19

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<210> 71
<211> 21
<212> DNA
<213> Artificial Sequence
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<220>
<223> Primer derived from human caspase-14 cDNA

<400> 71
cctgtatgat gtacaccttg g 21

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<210> 72
<211> 19
<212> DNA
<213> Artificial Sequence
```

<223> Primer derived from human caspase-14 cDNA

<400> 72
agagattctc cagcttgac . . 19

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<210> 73
<211> 19
<212> DNA
<213> Artificial Sequence
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<220>

090803 J2003

19

· 21

20

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<220>  
<221> modified_base  
<222> (537)  
<223> Where n is Adenine, Cytosine, Guanin or Thymidine
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<400> 76						
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tacctcagtc	tctactcact	aggagtcggt	aacgtcctcc	tttctatact	atacagttcca	120
cyggcgggacc	gggactgcga	cacacagtg	tttcggggccc	tcccaaggct	ccatctgtac	180
ctccggggacc	ttgcgtacaa	ggcaatggac	tttaaacttt	cgtgggtactt	ctccctaggg	240
tggcggggtcg	ttaaagacct	tctcaacct	cttaaagtgc	tctggtatct	attaaccctt	300
ctcggacagt	cgacacggaa	acaccatgag	taccgtgtac	cactccttcc	ggaggagttc	360
cctcttctac	cttctctacca	gtctgatctt	ctggaaaaac	ttcagaactt	gttgttcttg	420
acgtttccggg	actctccggt	cgggtttccac	atgtagtagg	tccgaacatc	tcctctcgtg	480
tctctgggggc	cactccttga	tgcaccttta	ctccttgatc	cacctctact	ccttgancca	540
cctctactcc	aacgacacga	gttcttggtg	ggggtttcat	agggttggat	atgcctatgg	600
gaggtgtaga	tgagggtgcca	tctccccatg	gagaggatat	ctgtactgct	ctttccgaga	660
ccgaagtagg	tctgggactg	cctacacaag	taagtatttt	ttcctaggta	gaattcttag	720
tgtcttctct	agtgggctga	ataccgtttg	tgctccact	acgtccttcc	ttttggttcc	780
tttcaacttg	gacttcagggt	ttcgtgggag	gccttcttcg	agataaaact	tattttctct	840
cccgctcccta						850

<210> 77



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1

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[illegible]